

NOTIFICATION OF REASONS FOR REJECTION

Applicant: Name: KABUSHIKI KAISHA TOSHIBA
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Address:

Agent: Name:
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Patent Application No.: 10-1998-0006631

Title of the Invention: PATTERN FORMING MATERIAL, PATTERN FORMING METHOD AND EXPOSURE MASK MANUFACTURING METHOD

As a result of examining the present application, the application is rejected on the grounds stated below. If the applicant wishes to argue against the rejection or it is necessary to make an amendment, a written opinion or an amendment must be filed, based respectively on the stipulations of Section 63 of the Patent Law, by January 19, 2003 (the due date can be extended by one month at a time and a notification of approval of the extension of time will not be issued)

REASON

The invention is unpatentable under Section 29 (2) of the Patent Law, as being such that the invention described in claims 1 - 4 could easily have been accomplished by a person having ordinary knowledge in the technical field to which such an invention belongs, on the basis of the invention described in the following publications distributed prior to this application.

REMARKS

Claims 1 - 4 of the present application are directed to a pattern forming material for electron beam drawing, which contains a substituent (acid) having a solution-inhibiting capacity or solution-inhibiting group, and also directed to a pattern forming method and exposure mask

manufacturing method. Jpn. Pat. Appln. KOKAI Publication No. 11-231542 (reference 1) discloses a pattern forming method using a photoresist which contains a first solution-inhibiting group similar to that of the present invention. In this method, a chemically amplified resist is developed by an alkali developer in an electron beam lithography, and contains a polymer that has a group capable of suppressing dissolution and is decomposable by an acid catalytic function. Jpn. Pat. Appln. KOKAI Publication No. 11-218925 (reference 2) discloses a positive-type chemically amplified photosensitive resin composition that contains an alkali-soluble resin, a chemical compound that generates an acid upon irradiation with activating actinic rays, and a chemical compound which enhances its alkali-solubility by acid catalytic reaction and has an acid-decomposable group. Jpn. Pat. Appln. KOKAI Publication No. 11-282166 (reference 3) discloses a chemically amplified resist and resist system in which part of a polar functional group contained in an aqueous base-soluble polymer or copolymer is protected by a substituent ketal protector group such as methoxycyclohexanyl. It is considered that the invention of claims 1-4 could have easily been achieved by anyone skilled in the art in light of the methods and devices disclosed in the above-described references.

[Attachment]

Attachment 1: A Copy of Jpn. Pat. Appln. KOKAI Publication No. 11-231542 (filed August 27, 1999)

Attachment 2: A Copy of Jpn. Pat. Appln. KOKAI Publication No. 11-218925 (filed August 10, 1999)

Attachment 3: A Copy of Jpn. Pat. Appln. KOKAI Publication No. 11-
282166 (filed October 15, 1999)

November 19, 2002

Examiner's Name (Signed)

(Translation of a notice from the Japanese Patent Office)

Mailing No. 028690

Mailing Date: February 4, 2003

NOTIFICATION OF REASONS FOR REJECTION

Patent Application No.: 2000-080093

Examiner's Notice Date: January 27, 2003

Examiner: M. Akizuki

Attorneys on Record: Takehiko Suzuye

~~This application is rejected on the grounds stated below.~~ Any opinion about the rejection must be filed within 60 DAYS of the mailing date hereof.

REASONS

The invention according to claims indicated below in the present application is unpatentable under Section 29 (2) of the Patent Law, as being such that the invention could easily have been made by a person with ordinary skill in the art to which the invention pertains, on the basis of the invention described in the following publications distributed in Japan or a foreign country prior to this application or the invention made

available to the public through electric telecommunication lines in Japan or a foreign country prior to this application.

REMARKS

References Cited:

1. Jpn. Pat. Appln. KOKAI Publication No. 2000-066405
2. Jpn. Pat. Appln. KOKAI Publication No. 09-179301
3. Jpn. Pat. Appln. KOKAI Publication No. 11-015163

Re: Claims 1 to 4

References 1 to 3 are applicable to claims 1 to 4.

Reference 1 ([What is claimed is], [0007], [0008], [0010] to [0055], [0090], [0098] and [0111] to [0115]), reference 2 ([What is claimed is], [0004], [0018] and [0019]) and reference 3 ([What is claimed is], [0009], [0020], [0029], [0031] to [0033] and [0060]) disclose the same pattern formation

material and pattern formation method as the present invention. It cannot be said that it is difficult to apply them to a mask for exposure.

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Prior Art Search Report

Searched Field: IPC seventh ed. G03F 7/00-7/42

~~The result of this prior art search does not constitute the reasons for rejection.~~
